

**Responses to Questions on the Final Rule  
for the NO<sub>x</sub> SIP Call  
Volume 1**

**(63 FR 57356, October 27, 1998)**

**U.S. Environmental Protection Agency  
January 1999**

## WHAT'S COVERED--CUTOFFS/EXEMPTIONS

1. Are boilers, turbines and combined cycle units less than 250 mmBtu exempt from the FIP and section 126 proposals (and not included in the SIP Call budget calculated decreases)?

*In most cases, yes.*

1. *Where boiler heat input capacity data were available for a unit, those data were used; units with such data that are less than or equal to 250 mmBtu are “small” and exempt from the emissions decreases in the FIP and section 126 proposals and the SIP Call budget calculation.*
2. *Where boiler heat input capacity data were not available for a unit, those data were estimated; units estimated to be less than or equal to 250 mmBtu are “small” and exempt from the emissions decreases in the FIP and section 126 proposals and the SIP Call budget calculation, if the emissions from the unit are less than or equal to 1 ton per day, ozone season average.*

*(See Technical Support Document “Development of Modeling Inventory and Budgets for Regional SIP Call”, 9/24/98, pages 12-13.) (Also see the SIP Call correction and clarification notice--63 FR 71220, December 24, 1998.)*

2. Are stationary internal combustion (IC) engines with a horsepower rating equivalent or less than 250 mmBtu exempt from emission reductions in the budget calculations in the SIP Call final rule and FIP proposal?

*Stationary internal combustion engines were assigned emissions decreases in the SIP Call using the more than one ton per day cutoff, not horsepower or mmBtu. (These source categories are not part of the section 126 rule.) That is, in the SIP Call budget calculation, EPA uses tons per day to determine which stationary internal combustion engines are “small” and “large”. The 250 mmBtu cutoff is used to determine large non-EGU boilers and turbines, not stationary internal combustion engines.*

*As noted in the SIP Call proposal notices, horsepower data was generally absent from the available emissions inventory data. Because quality assured data are still lacking, EPA used the alternative approach described above to determine size categories of IC engines.*

*The FIP proposes a rule covering certain stationary internal combustion engines. In order to meet the SIP Call budget in 2007, the proposal approximates the one ton per day cutoff in the SIP Call final rule by using specific horsepower cutoff levels based on type of IC engine.*

3. If a boiler has a permit that restricts the capacity utilization to below 250 mmBtu, is the unit exempt from the SIP Call? (Region 4/NC).

*No, the unit is not exempt from EPA's budget calculation. However, as States respond to the SIP Call, they are free to determine which sources or source categories are required to make reductions so long as the total budget is met. The cutoff for SIP Call budget calculation purposes and the proposed trading rule is based on nameplate heat input capacity (see trading rules in 40 CFR 96.4 or 97.4, Applicability).*

4a. Based on the preamble and the final rule (Part 51) there is some confusion about the applicability of the 250 MMBTU/hr cut-off for internal combustion (IC) engines and cement plants. Please clarify the applicable cut-off for these sources--250 mmBtu/hr v. 1 ton/day. (Region 5/LADCO; Region 4)

*The cutoff for stationary IC engines and cement plants is greater than one ton per day, not 250 mmBtu. A stationary internal combustion engine or a cement plant was determined to be "large" if its 1995 average daily ozone season NOx emissions were greater than one ton. The heat input capacity does not affect its classification as large or small. (See SIP Call final rule, preamble section III.C.3.b.)*

4b. Discuss how to regulate IC engines and cement plants. Define what governs for cement manufacturing. Define how IC engines are covered. (Region 4)

*The cutoff for stationary IC engines and cement plants is greater than one ton per day, not 250 mmBtu. (See SIP Call final rule, preamble section III.C.3.b; also see the SIP Call correction and clarification notice, 63 FR 71220, December 24, 1998.)*

#### **Cement Manufacturing**

*As described in the NOx SIP Call, EPA's budget calculation includes a 30% decrease from uncontrolled levels for the large sources in the cement manufacturing category. The proposed FIP is designed to achieve that 30% emissions decrease using control technologies that are estimated to be less than \$2,000 per ton of NOx removed. The proposed requirements are to install and operate low-NOx burners, mid-kiln firing, or alternative control techniques, subject to EPA approval, that achieve at least the same emissions decreases as low-NOx burners or mid-kiln firing. The proposed rules apply only to large cement sources, i.e., kilns with at least the following process rates: Long dry kilns - 12 tons per hour (tph); Long wet kilns - 10 tph; preheater kilns - 16 tph; precalciner and preheater/precalciner kilns - 22 tph.*

#### **Stationary Internal Combustion Engines**

*As described in the NOx SIP Call, EPA's budget calculation includes a 90% decrease from uncontrolled levels for the large sources in the stationary internal combustion*

*engines category. The proposed FIP is designed to achieve that 90% emissions decrease, averaged over a rolling 30-day period, using control technologies that are estimated to be less than \$2,000 per ton of NOx removed on average. To ensure that the rules apply only to large sources, the regulation includes a size cutoff of between 2,400 and 4,400 brake horsepower, depending on the fuel.*

*Additional information is found in the applicable EPA NOx ACT document (<http://www.epa.gov/ttn/oarpg/t1pgm.html>).*

4c. Are IC engines and cement plants categories for mandatory coverage? How to establish budgets for them? (Region 3/PA)

*No, the SIP Call does not require mandatory coverage. States can offset the reductions from IC engines and cement kilns that were assumed in EPA's budget calculations with reductions from other sources. The EPA's budget calculations for IC engines and cement manufacturing included a reduction to large sources as identified and clarified in the NFR corrections notice (63 FR 71220, December 24, 1998). Seasonal NOx emissions for these large sources are projected to 2007 from the 1995 base, and existing and non-SIP Call planned controls are then removed to estimate 2007 uncontrolled emissions. To this uncontrolled estimate, budget level reductions are applied, as defined in "Technical Support Document on Development of Modeling Inventory and Budgets for the Ozone Transport SIP Call," (Budget TSD), September 1998, Docket Number A-96-56, VI-B-10. For questions related to VMT baseline and growth projections, call Mark Wolcott, EPA, Office of Mobile Sources, telephone 734/214-4219. These budget level reductions are applied to each large source to establish each source sector's portion of the overall State budget.*

5. Is there any MWe cutoff considered for defining an EGU?

*Yes, there is a greater than 25MWe cutoff for purposes of the SIP Call, FIP and section 126 actions.*

6. What is a fossil-fueled boiler? The SIP Call notice talks about fuels that are recycled (such as black liquor at the paper mills) as being not covered and therefore EPA did not calculate any emission reductions. Am I correct in this reading? (Region 3)

*This is a correct reading of the notice. Reductions are obtained from fossil-fueled boilers. Fossil-fueled boilers are defined as (1)The combustion of fossil fuel, alone or in combination with any other fuel, where fossil fuel actually combusted comprises more than 50 percent of the annual heat input on a Btu basis during any year starting in 1995 or, if a unit had no heat input starting in 1995, during the last year of operation of the unit prior to 1995; or (2)The combustion of fossil fuel, alone or in combination with any other fuel, where fossil fuel is projected to comprise more than 50 percent of the annual*

*heat input on a Btu basis during any year; provided that the unit shall be “fossil fuel-fired” as of the date, during such year, on which the unit begins combusting fossil fuel.*

*Additional information on source categories and sources reduced for budget calculation can be found in the “Development of Modeling Inventory and Budgets for Regional NOx SIP Call” document (A-96-56, # VI-B-10) in chapters II (EGU sources) and III (non-EGU boilers).*

7. In calculating allowances for NOx budgets, are these allowances based on total heat input or only on fossil fuel-fired heat input?

*Allowances are based on total heat input.*

8. If we cover Part 98 sources under Part 96 budget program, can the 25 tons/season exemption apply? (Region 3/PA)

*Yes, the State has such flexibility so long as the State budget is met. If the State would like EPA to administer the trading program and intends to include part 98 sources in that program, these sources would be subject to additional requirements, including part 75 monitoring.*

9. What are the criteria (cutoffs) for covering combustion turbines? (Region 4)

*A combustion turbine was included in EPA’s budget calculations if:*

- 1) it is a non-electric generating unit (non-EGU) greater than 250 mmBtu rated capacity;  
or  
(2) it is an electric generating unit (EGU) connected to a generator greater than 25 MWe.*

*As indicated in the corrections notice, EPA used three sources of data for determining if a generator’s purpose included generation of electricity for sale and thus qualifies the unit connected to the generator as an EGU. First, EPA treated as EGUs all units that are currently reporting under Title IV of the Clean Air Act. Second, EPA included as EGUs any additional units that were serving generators reporting to the Energy Information Administration (EIA) using Form 860 in 1995. Form 860 is submitted for utility generators. Third, EPA included units serving generators that reported to EIA using Form 867 in 1995. Since Form 867 is submitted by non-utility generators, including generators “which consume all of their generation at the facility,” EPA excluded any units for which EPA had information indicating that the unit was not connected to any generators that sold any electricity. This was primarily determined by excluding units that were not listed as sources that sell power under contract to the electric grid using the electric generation forecasts of the North American Electric Reliability Council.*

*Once EPA determined that a boiler or turbine should be classified as a EGU, EPA considered that unit a large EGU if it served a generator greater than 25 MWe and considered it a small EGU if it served a generator less than or equal to 25 MWe.*

10. One 50 MWe generator is served by four units. Two are 249.9 mmBtu coal fired-boilers not covered by NSPS but with NO<sub>x</sub> RACT limits. The other two are 350 mmBtu black liquor oxidation furnaces. It would seem that the units are covered since they serve a greater than 25MWe generator, but that the two black liquor units are exempt as not being fossil fuel fired, while the two coal-fired boilers, although less than 250 mmBtu, are covered even though they only contribute 20MWe to the 50MWe generator. (Region3/PA)

*This statement is consistent with the way in which EPA calculated the budgets.*

11. Is new source growth on sources less than 250 million btu/hr or one ton/day sources included? (Region 3/VA)

*Yes, we projected growth for all sources through 2007, including small sources.*

12. If two boilers with capacity less than 250 mmBtu/hr serve a generator greater than 25 MWe, are they subject to the budget calculation? (Region 4)

*Yes. If small (or large) boilers serve a generator greater than 25 MWe which sells electricity to the grid, then they are considered large EGUs for purposes of EPA's budget calculation. EPA assumed reductions for such sources in determining State budgets.*

13. The RIA seems to include coke ovens in the large source category even though they burn mostly coke oven gas. How does EPA classify coke oven gas (and refinery gas, and blast furnace gas). Is this a fossil fuel? Did EPA include these sources in the budget calculation? We have a company talking about installing a new set of coke ovens in Pittsburgh. We need to know if this type of source was anticipated by EPA to be making emissions reductions. (Region 3/PA)

*Large industrial boilers that burn coke oven gas are included in the final SIP Call budget calculations. A 60 percent reduction level from uncontrolled emissions is applied as part of those calculations, according to EPA's Budget TSD (September 1998, Docket No. A-96-56, VI-B-10) and EPA's non-EGU source cost report, entitled "Ozone Transport Rulemaking Non-Electricity Generating Unit Cost Analysis," September 17, 1998, Docket No. A-96-56, VI-B-09(vvv).*

*Between proposal and promulgation of the NO<sub>x</sub> SIP Call rulemaking, EPA removed 90 large boilers in the inventory from consideration in the budget calculations since they burned non-fossil fuels. Since coke oven gas is derived from coal, EPA concluded that it qualifies as a fossil fuel for purposes of the NO<sub>x</sub> budget calculations.*

## EMISSIONS BUDGET/INVENTORY ISSUES

### General

1. Please review the IPM modeling assumptions as reflected in the budgets, the development of seasonal "inventories", and the changes to initial assumptions that have been finalized in the SIP Call budgets. (Region 5)

#### IPM Model

*See preamble to NOx SIP Call final rule, 10/27/98, page 57409. EPA used the IPM 1998 Base Case emissions forecast for deciding State NOx budgets in the final rule. The Agency finds it to be the fairest and most reliable overall approach to estimating growth factors. It deals consistently with the technical assumptions that occur in energy forecasting and employs a reasonable set of assumptions in the process of making a forecast. As an added advantage, it has undergone considerable review by the electric power industry over the last two years, and the industry was aware that it might be applied as it is in the final rulemaking. Finally, EPA's use of IPM for forecasting State growth rates provides for overall consistency in forecasting future emissions and estimating the cost-effectiveness of reductions in this rulemaking.*

*EPA believes that IPM provides a reasonable forecast of State growth rates because it carefully takes into account the most important determinants of electricity generation growth that are facing the power industry today. These major factors include: regional demands for electricity, the impacts of wholesale competition that lead to changes in market share for various utilities, changes in fossil fuel prices, expected improvements in electricity generation technology, costs of emission control technology, expected changes in generation unit operations and regional dispatch practices to lower production costs, nuclear unit retirements, alteration in planning reserve margins to meet peak demand, and limitations in moving power between regions due to transmission constraints.*

*An explanation of how EPA uses IPM to address these issues and other important factors is included in EPA's Analyzing Electric Power Generation under the CAAA, March 1998 (Docket no. A-96-56, V-C-3). Because EPA's assumptions have been reviewed by the public over the last two years and the Agency has worked with EIA and other groups to improve them in response to comments and new information, the Agency believes that it has made reasonable assumptions for a Base Case forecast of electric power generation.*

*IPM's documentation is available on the following EPA web site:  
[www.epa.gov/capi](http://www.epa.gov/capi).*

### Development of Inventories

*Under the initial OTAG inventory collection process, the 37 States in the domain provided emission estimates for each entire State. The majority of the supplied data were 1990 State ozone SIP emission inventories, but some States supplied data from later years that reflected significant improvement over the 1990 data. Additionally, OTAG collected point source data from the States to update and revise existing emissions inventories used by OTAG. The result of these efforts was an improved emissions inventory which OTAG utilized for modeling as well as strategy analyses.*

*EPA used the final OTAG version of the inventory for the emission estimates in the NPR, and then improved the inventory with data supplied by the States and industry through the public comment period. As a result, the revised emissions inventory is the most accurate available for modeling, strategy analyses, and budget calculation purposes. The inventory has been through numerous versions, each version reviewed and extensively commented on by States, industry, and the public. These inventory data are more accurate than any other data used in the past as the basis for the various State-specific SIP revisions (such as rate-of progress SIP revisions or attainment demonstrations). EPA considers it sufficiently accurate for purposes of determining the budgets.*

*EPA recognizes that emission inventories change as more accurate data or methods are developed for estimating emissions. For inventory changes that may be necessary after final promulgation of the budgets, EPA has a process for determining what changes need to be made as well as how the changes would be made to the inventories.*

*Under the guidance of OTAG, the initial emission inventories submitted by the States were quality-assured by technical experts, including State and local emission inventory contacts, industry, EPA staff and contractors, and the OTAG Emission Inventory Technical Committee. As EPA amended and modified the inventory for use in the modeling for the NPR, SNPR, and the budget analyses, additional quality assurance was completed. The most accurate inventory development tools available at the time were used to validate these data and to quality assure emission calculations in these data bases. Existing data sets, including the NET data, the OTC NO<sub>x</sub> Baseline emission inventory, EPA'S AIRS/AFS major point source reporting system, and EPA's Emission Tracking System (ETS), which contains data submitted and certified as correct by the States, were used for comparison purposes. Where discrepancies were found, either before, during, or after the public comment period, States and industry were contacted to clarify and support revised emission estimates.*

### Changes to Initial Assumptions

*On February 3, 1998, in response to initial public comments and internal review of the*



*initially released data, draft amendments to the emissions inventory were posted on the EPA's TTN site. These changes included the addition of EGU sources less than or equal to 25 MWe which were excluded from the initial budget calculation, correction of EGU growth factors, and the reclassification to the non-EGU file of some sources previously erroneously identified by OTAG as EGU sources. Erroneously omitted non-EGU point source records were also added to the emissions inventory. Area, highway, and nonroad mobile source information was not modified in this iteration.*

## **Corrections to States' Inventories**

1. What is the deadline for comments to be submitted to the Air and Radiation Docket for proposing revisions of the baseline and budget inventories?

*The deadline is February 22, 1999. See FR 63 71220, December 24, 1998.*

2. What is required to fix the inventory? EPA published a long list of data requirements. But is it really necessary to fix a simple error? We have found that EPA made an error in the final inventory for one EGU. They had it right in the proposed [inventory]. We have also found a source miscategorized. This should be a simple change--do we really need to submit stack information and all the rest to fix this type of problem? (Region 3)

*In general, EPA encourages sources and States to submit any source-specific data they believe will improve the accuracy of the inventories and budgets. States and sources making corrections that affect the budget should submit correct information for all the data that affect the budget. Any corrections should be sent in an electronic format to the Air and Radiation dockets for the NO<sub>x</sub> SIP Call (Docket Number A-96-56), as well as dockets for the Section 126 proposal (Docket Number A-97-43) and the FIP proposal (Docket Number A-98-12).*

*In many cases, not all of the inventory information needs to be corrected and resubmitted. For example, it may be the case that source-specific NO<sub>x</sub> emission rates are incorrect, but all stack and other emissions data are acceptable. In these cases, it is not necessary to resubmit the entire inventory record data. Only source identification information and additional data that require correction with appropriate corroborating documentation need to be resubmitted. For example, if changing emissions per day, it is necessary to submit supporting historical (1995 or 1996 recorded) information used to calculate or determine the revised emissions information. In those cases where the majority of the data are incorrect or the submission is for a new, unaccounted for source, complete files with all data fields outlined in Section III.F.5 of the final rulemaking preamble must be submitted.*

*For those sources where a majority of the inventory information does not need to be*

*corrected, a simplified inventory revision submittal is acceptable and must include the following information:*

- < Source sector needing revision*
- < Identification of the specific changes requested to the inventory*
- < Reason for requested change*
- < All of the sector-specific information in electronic file format which was outlined in the final rulemaking preamble, Section III.F.5, page 57427--see **Attachment B to this document for a list of this sector-specific information.***

*For general questions, please contact Greg Stella, EPA, Office of Air Quality Planning and Standards, telephone 919/541-3649. For questions specific to the EGU inventory, please contact Kevin Culligan, EPA, Office of Atmospheric Programs, telephone 202/564-9172. For questions related to VMT baseline and growth projections, call Mark Wolcott, EPA, Office of Mobile Sources, telephone 734/214-4219.*

3. EPA is now requesting that inventories be updated within 60 days. At the Myrtle Beach meeting it was confusing as to whether growth factors may or may not be adjusted at this time. One of the disadvantages of meeting the federal standards is that South Carolina is at a distinct disadvantage in commenting on the accuracy of the inventory and associated assumptions such as growth factors. Please identify exactly what we have the opportunity to change regarding the inventory and what resources might EPA have available to the states to assist us in making the inventory more accurate, particularly in the areas of growth factors and area and mobile sources. (Region 4/SC)

*EPA reopened the period for emissions inventory revisions to 2007 baseline sub-inventory information used to establish each State's budget in the NOx SIP Call. The comment period is reopened through February 22, 1999 (60 days after publication of the correction and clarification action--see 63 FR 71220, December 24, 1998). Specifically, EPA will accept comments during this time period on the following: (1) source-specific inventory data used to establish each State's base and budget and (2) Vehicle Miles Traveled (VMT) growth rates, VMT distribution by vehicle class, average speed by roadway type, inspection and maintenance program parameters, and other input parameters used in the calculation of highway vehicle emissions. Please note that the second item was not indicated as an item EPA would be accepting comments on in the final SIP Call. Due to the very tight timeframe associated with the section 126 action, in order to ensure that all comments receive thorough review and consideration, States/sources are encouraged to submit suggested corrections as soon as possible for sources covered in EPA's section 126 proposal, preferably within the first 30 days of the extension.*

4. What will EPA do after the 60-day inventory correction comment process? (Region 4/GA)

*Within 60 days after the close of the comment period (i.e., by April 23, 1999), EPA will evaluate the data submitted by commenters and, if it is determined to be technically justified, will revise the State budgets for the NOx SIP Call to reflect the new data, thus effectively finalizing State budgets.*

5. Will EPA contact the States if EPA receives industry information that is not sent to the States? (Region 4/GA)

*Due to the short timeframe in which to finalize the State budgets, EPA will not be able to guarantee that all source-specific emissions data will be sent back to the States for review. As EPA receives these data, we will compile a list of this information that will be made available to the States. EPA intends to establish a web site location where all data submissions will be listed. States can view submissions and relevant information in a timely manner from this location. In addition, any new information received from industry will be available for review in the Air and Radiation docket for the NOx SIP Call rulemaking (A-96-56), as well as the docket for the section 126 proposed rulemaking (A-97-43) and the docket for the FIP proposed rulemaking (A-98-12).*

6. Will EPA entertain comment on sectors other than stationary sources when it publishes its correction notice? (Region 4)

*Yes. EPA reopened the period for emissions inventory revisions to 2007 baseline sub-inventory information used to establish each State's budget in the NOx SIP Call. EPA will accept comments on all five sectors--EGU, non-EGU, area, nonroad, and highway. Specifically, EPA will accept comments through February 22, 1999 on the following: (1) source-specific inventory data used to establish each State's base and budget and (2) VMT growth rates, VMT distribution by vehicle class, average speed by roadway type, inspection and maintenance program parameters, and other input parameters used in the calculation of highway vehicle emissions. Please note that the second item was not indicated as an item EPA would be accepting comments on in the final SIP Call. Due to the very tight timeframe associated with the section 126 action, in order to ensure that all comments receive thorough review and consideration, States/sources are encouraged to submit suggested corrections as soon as possible for sources covered in EPA's section 126 proposal, preferably within the first 30 days of the extension.*

7. Describe the impact that budget changes made during the 60-day inventory correction comment period might have on conformity. (Region 4)

*Future transitional areas whose attainment demonstration relies on EPA's modeling may have conformity budgets based on the corrected inventory. Note: the NOx SIP Call emissions budget is statewide; however, conformity is for the local nonattainment areas.*

## EGU Point Sources (Region 5/LADCO)

1. Clarify the requirements for submitting revised base year data, including format for data submittal and documentation required to “corroborate and justify” the revised data.

*For a list of data requirements for simplified submissions, see Attachment B of this document; also see section III.F.5 (63 FR 57427, October 27, 1998) of the preamble to the final NOx SIP Call rulemaking. An electronic version of data corrections must be submitted (i.e., spreadsheet, data base, text file) and must be accompanied by information to support the requested change. These data must be submitted to the dockets noted above, with any data modification request no later than February 22, 1999--see EPA's notice of corrections and clarification to the final rule (See 63 FR 71220, December 24, 1998). Note that as explained in question 2 of “Corrections to State Inventories,” simplified submittals are allowed in certain cases.*

- 2a. Clarify the definition of an EGU source.

*See question 1, “What’s covered - cutoffs, exemptions”*

- 2b. Under the definition in the final rule (Part 51), some previously classified “large non-utility” sources (greater than 250 mmBtu/hr) were subject to a 70% control requirement, but are now classified as “small EGU” sources (less than 25 MWe) subject to no control. Was this change intended?

*Yes. If the source was misclassified previously as a non-EGU, but has been determined to sell electricity, it should be reclassified as an EGU.*

3. Justify the statewide growth factors:

- 3a. Address the consistency of the IPM growth projections with those provided by individual State PSCs.

*See NOx SIP Call Notice of Final Rulemaking (63 FR 57356, October 27, 1998). EPA did recognize the inconsistencies between State growth projections and IPM forecasts. We received comments suggesting that the Agency use individual State forecasts instead of IPM forecasts, including projections used for State utility planning efforts; however, we rejected this type of approach for two reasons. First, nothing in the comments suggested to EPA that the State forecasts are more accurate or more reliable than the IPM forecasts. Instead, the State forecasts varied State by State in the way they predicted future electricity generation. Adoption of these forecasts could result in inconsistencies in setting the State budgets. Electricity generation forecasts require making many technical assumptions which, admittedly, lead to some uncertainty in the results. Accordingly, EPA believes that the fairest way to determine emissions budgets is to*

*handle these assumptions in a consistent way for all of the States, as long as a reasonable approach and reasonable modeling assumptions are used.*

3b. Provide a brief overview of the IPM methodology and the key inputs/assumptions

*See above response under "General"-- use of IPM modeling assumptions.*

3c. Address the changes in key IPM inputs/assumptions between the NPR, SNPR, and NFR

*The recent key changes that were incorporated into EPA's use of IPM in 1998 include using the most recent NERC estimate of regional electricity demand; the latest available EIA and NERC generation unit data; updated fuel forecasts; updated assumptions on nuclear, hydroelectric, and import assumptions (with special attention to differences in summer use); and an increase in the level of detail in the model to more accurately capture the transmission constraints that exist for moving power between various regions of the country. We also updated its assumptions on the size and operation of all electricity generation units of utilities and independent power producers (with special attention to cogenerators) and updated its assumptions on planning reserve margins and the costs of building new generation capacity. For this, we relied heavily on information compiled from utilities by NERC and the EIA. Each of these agencies has regular contact with the power industry and has its data reviewed by the power industry. Again, details on these improvements in IPM can be found in EPA's Analyzing Electric Power Generation under the CAAA, March 1998 (Docket no. V-C-3).*

3d. Provide information on the reliability (i.e., evaluation with actual data) and stability (i.e., sensitivity of data for a single year) of previous IPM growth projections

*See above response under "General"-- use of IPM modeling assumptions. Because EPA's assumptions have been reviewed the public over the last 2 years and we have worked with EIA and other groups to improve these assumptions in response to comments and new information, we believe we have made reasonable assumptions for a Base Case forecast of electric power generation.*

4. Is EPA assuming a regional "cap" in both generation and emissions? How and when is the regional utility system baseline frozen (do one state's adjustments affect the regional budget?) ?

*EPA determined an emissions budget (or cap) for all sources in the SIP Call Region. EPA did not assume a cap on generation. State caps will be finalized when EPA finalizes the emissions inventories in April 1999. Adjustments to one State's budget will affect the regional budget, but they will not affect other States' budgets. Adjustments to one State's budget could, however, affect the distribution of the compliance supplement pool.*

## Non-EGU Point Sources

1. Clarify the requirements for submitting revised base year data, including format for data submittal and documentation required to “corroborate and justify” the revised data. (Region 5)

*See Attachment B of this document for a list of non-EGU point source sector-specific information required for emissions inventory revisions. See also EPA’s corrections and clarification to the final preamble/rule for the NOx SIP Call (63 FR 71220, December 24, 1998). For corroborating examples, see Section III.F.5 of the final preamble for the NOx SIP Call (63 FR 57427, October 27, 1998). An electronic version of data corrections must be submitted (i.e., spreadsheet, data base, text file) no later than February 22, 1999 and must be accompanied by information to support the requested change.*

2. Clarify the definition of a non-EGU source: (see “Cutoffs/Exemptions”)

*See responses under Cutoffs/Exemptions above. A non-EGU source is any point source that does not fall under the EGU definition. States may have their own cutoff for small point sources.*

3. How has EPA accounted for existing industrial sector NOx controls where RACT has not been required? For example, can budget adjustments be made for facilities whose existing emissions baseline is a low emission rate such that a 60% reduction is not automatically derived in establishing budget? (Region 5)

*The non-EGU point source emissions inventories should be adjusted to represent uncontrolled emissions prior to applying the budget reduction.*

4. How can States lower the threshold from 250 mmBtu to 100 mmBtu to include the smaller non-EGU boilers? (Through rulemaking? Revise inventory?) (Region 5)

*States are free to control whatever sources they want and, thus, could pick a different cutoff level than EPA chose. States should assume the same growth rate for these smaller sources and stay within the same budget target. States would adopt rules in their SIPs for and calculate additional emissions decreases from the affected smaller sources. The SIP budget would reflect emissions reductions from both the large and affected smaller units.*

5. Who can States talk to about the inventory details? It has been hard to figure out what sources EPA is talking about sometimes. For instance, the supplemental data listed a source named "Philadelphia refinery". There are three of these in Philadelphia. Who in EPA knows which one they are talking about? (Region 3)

*For inventory questions related to non-EGU stationary and area sources, please contact Greg Stella, EPA, Office of Air Quality Planning and Standards, telephone 919/541-*

3649. For inventory questions related to EGU sources, please contact Kevin Culligan, EPA, Office of Atmospheric Programs, telephone 202/564-9172. For questions related to VMT baseline and growth projections, call Mark Wolcott, EPA, Office of Mobile Sources, telephone 734/214-4219.

### **Non-Road and Other Area Sources**

1. Clarify the requirements for submitting revised base year data, including format for data submittal and documentation required to “corroborate and justify” the revised data (Region 5)

*See Attachment B of this document for a list of non-road and area source sector-specific information required for emissions inventory revisions. See also EPA’s corrections and clarification to the final preamble/rule for the NOx SIP Call (63 FR 71220, December 24, 1998). For corroborating examples, see Section III.F.5 of the final preamble for the NOx SIP Call (63 FR 57427, October 27, 1998). An electronic version of data corrections must be submitted (i.e., spreadsheet, data base, text file) no later than February 22, 1999 and must be accompanied by information to support the requested change.*

### **Motor Vehicle Sources**

1. Clarify the requirements for submitting revised base year data, including format for data submittal and documentation required to “corroborate and justify” the revised data. (Region 5)

*See Attachment B of this document for a list of highway mobile source sector-specific information required for emissions inventory revisions. See also EPA’s corrections and clarification to the final preamble/rule for the NOx SIP Call (63 FR 71220, December 24, 1998). An electronic version of data corrections must be submitted (i.e., spreadsheet, data base, text file) no later than February 22, 1999 and must be accompanied by information to support the requested change.*

2. Clarify the methodology used to generate seasonal emissions. (Region 5)

*Mobile 5a was used to calculate emission factors by month for each unique control area within a State. Monthly average temperatures over the period 1970 to 1997 were used. Annual VMT was temporally allocated to the four seasons. The summer VMT was allocated to June, July and August based on the number of days in each month. A portion of the spring VMT was allocated to May, and a portion of the fall VMT was allocated to September. Emission factors were applied to monthly VMT to come up with emissions for each month. Monthly emissions were summed to get the seasonal total. Mobile 5b corrections factors were then applied to the inventories to account for heavy duty NOx reform.*

3. To validate the model for the base case, using 1995 or 1996 as a base year, how would the emissions have to be revised to account for the diesel emissions that were higher than assumed because of the defeat device used on Heavy Duty trucks? Will there be any HD Diesel inventory true-ups based on the recent terms of the "defeats" settlement? (Region 4)

*This is currently under review, and no decision has been made at this time.*

4. Can we resolve or do we need to worry about differences in mobile sector modeling assumptions between state/regional/national defaults for model inputs (such as VMT Growth, VMT Mix, etc.)? For example, what do the mobile source emissions projections for 2007 really mean (especially, if additional mobile source controls are not pursued under the NOx SIP Call)? (Region 5)

*The 60-day comment period following the notice of corrections and clarifications to the final rule is a good opportunity for States to submit information to EPA regarding changes to mobile sector modeling assumptions, including VMT growth/mix. The State's total projected emissions for mobile sources in 2007 are important toward the overall budget; for example, if States determine that mobile emissions are lower than the original projections, States have an opportunity for growth in the area and point sectors. In addition, some areas that will be classified as transitional nonattainment areas under the 8-hour ozone standard may rely on the county-specific modeling inputs (such as VMT growth) for transportation conformity purposes.*

5. How did EPA develop their emission numbers (base and projected) for Off-Road Mobile? (Region 3/DE)

*The stationary area and nonroad mobile source inventory was based on data sets originating with the OTAG 1990 base year inventory. These base year inventories were prepared with 1990 State ozone SIP emission inventories supplemented with either State inventory data, if available, or EPA's National Emission Trends (NET) data if State data were not available. The OTAG 1990 nonroad emission inventories were based primarily on estimates of actual 1990 nonroad activity levels found in the October 1995 edition of EPA's annual report, "National Air Pollutant Emission Trends." These area and nonroad mobile source inventory data for 1990 were then grown to 1995 using Bureau of Economic Analysis (BEA) historical growth estimates of industrial earnings at the State 2-digit SIC level.*

*Based on comments submitted during the NPR and SNPR public comment periods, the 1995 stationary area and nonroad mobile source inventories were revised with data addressing issues such as emission estimate revisions, spatial allocation revisions, and base year control levels. Where 1990 base year data were used, the method described above was utilized to account for growth to 1995 levels.*



*The inventory data for 1995 was projected to 2007 using BEA projections of Gross State Product (GSP) at the 2-digit SIC level and the Emissions Modeling System-95 (EMS) to generate typical ozone season weekday, Saturday, and Sunday allocations for episodic modeling.*

*In contrast to the SNPR, reductions from certain nonroad mobile controls were assumed to occur in the base case as a result of measures implemented between promulgation of the final rule and base year 2007. These measures include the Federal Small Engine Standards, Phase II; Federal Marine Engine Standards (for diesel engines of greater than 50 horsepower); Federal Locomotive Standards; and the Nonroad Diesel Engine Standards. Controls previously reflected in the budget were not included in the base case in the original SNPR calculations. These measures were included in the base case, rather than the budgets, because the measures would be implemented even in the absence of the final rulemaking. No additional reduction was incurred between the base and budget cases.*

## **Other Budget Issues**

1. Clarify the volatile organic compound (VOC) emission reduction credits assumed by USEPA in modeling the SIP Call. While we understand that the emission budgets are based on NO<sub>x</sub> emissions, USEPA's claim that the regional NO<sub>x</sub> reductions "should be enough to enable the vast majority of the new counties violating the 8-hour NAAQS that are located in States throughout the East to attain the revised 8-hour standard" may be dependent on the amount of VOC reductions, as well as NO<sub>x</sub> reductions, especially in the vicinity of urban areas. (Region 5)

*See Table A-1 (below) from the Budget TSD, September 1998, Docket Number A-96-56, VI-B-10. All VOC controls are indicated in bold text.*

**Table A-1**  
**2007 Base Case Controls**

<b>EGU</b>	<ul style="list-style-type: none"><li>- Title IV NO<sub>x</sub> Controls [ phase 1 &amp; 2 ]</li><li>- 250 Ton NO<sub>x</sub> Prevention of Significant Deterioration (PSD) and New Source Performance Standards (NSPS)</li><li>- Reasonably Available Control Technology (RACT) &amp; New Source Review (NSR) for NO<sub>x</sub> in non-waived nonattainment areas (NAAs)</li></ul>
<b>Non-EGU Point</b>	<ul style="list-style-type: none"><li>- NO<sub>x</sub> RACT on major sources in non-waived NAAs</li><li>- 250 Ton NO<sub>x</sub> PSD and NSPS</li><li>- NSR for NO<sub>x</sub> in non-waived NAAs</li></ul>

- *Control Techniques Guideline (CTG) & Non-CTG VOC RACT at major sources in NAAs & Ozone Transport Region (OTR)*
  - *New Source NO<sub>x</sub> Lowest Achievable Emissions Rate (LAER)*
  - *NO<sub>x</sub> MACT standards to municipal waste combustors (MWCs)*
- Stationary Area**
- *Two Phases of VOC Consumer and Commercial Products & One Phase of Architectural Coatings controls*
  - *VOC Stage 1 & 2 Petroleum Distribution Controls in NAAs*
  - *VOC Autobody, Degreasing & Dry Cleaning controls in NAAs*
- Nonroad Mobile**
- *Federal Phase II Small Engine Standards*
  - *Federal Marine Engine Standards.*
  - *Federal Nonroad Heavy-Duty ( $\geq 50$  hp) Engine Standards - Phase 1*
  - *Federal Reformulated Gasoline (RFG) II (statutory and opt-in areas)*
  - *9.0 RVP maximum elsewhere in OTAG domain*
  - *Federal Locomotive Standards (not including rebuilds)*
  - *Federal Nonroad Diesel Engine Standards - Phases 2 & 3*
  - *On-board vapor recovery*
- Highway Vehicles**
- *National Low Emitting Vehicle (LEV) Controls*
  - *Federal RFG II (statutory and opt-in areas)*
  - *Phase II RVP limits elsewhere in OTAG domain*
  - *High Enhanced, Low Enhanced, or Basic Inspections and Maintenance (I/M) in areas specified by State*
  - *Clean Fuel Fleets (mandated NAAs)*
  - *Heavy Duty Vehicles (HDV) 2 gram standard*

2. The States have found that emission rates for their utility sources differ in the NO<sub>x</sub> SIP Call, Section 126, and FIP emissions tables. Is there a reason for this? It would appear that the base 1995/1996 NO<sub>x</sub> emissions should be the same for use in any of the regulatory actions. (Region 5)

*The source-by-source EGU budgets in the SIP Call were based, in part, on heat input from 1995-96. In contrast, the allocations in the FIP and section 126 are based, in part, on heat input from 1995-97 and are adjusted (0.95 factor) for a new source set aside. The 1997 data were not available in time to include in the budget calculation which was proposed in November 1997. We did not incorporate them into the final SIP Call in October 1998 because this would have been without first inviting public comment. In contrast, the 1997 data were available for the October 1998 proposals. These proposals use the 1997 data for purposes of allocations because they are the most recent heat input data available and will receive full public comment. The proposed allocations are adjusted to be consistent with the budgets calculated in the SIP Call final rule; i.e., the tons per State are the same in the proposed allocations and the final State budgets for the large boilers and turbines.*

3. What happens to the budgets after 2007?

*See Notice of Final Rulemaking for the NO<sub>x</sub> SIP Call (63 FR 57425-57426, 10/27/98). The overall 2007 budget number itself is not enforceable against the State. The budget serves as a tool for projecting in advance whether a State has adopted measures that would produce the required amount of emissions reductions, as indicated by the initial demonstration submitted by September 30, 1999. The budgets are also a means for determining from 2003 to 2007 whether States are fully implementing those measures. Thus, the budgets are an accounting mechanism for determining whether upwind States have adopted and implemented control measures that prohibit the significant amounts of NO<sub>x</sub> emissions targeted by section 110(a)(2)(D)(i)(I).*

*There is a special year 2007 emission inventory report for ozone season emissions from all NO<sub>x</sub> sources in the State submitted for this year. This report is due December 31, 2008. We will assess whether States met their 2007 budget after receiving and reviewing the December 31, 2008 report. After compiling the necessary data, EPA will reassess transport in the full OTAG region to evaluate the effectiveness of the regional NO<sub>x</sub> measures and the need, if any, for changes to the regional control strategy. Based on this reassessment, EPA may establish new budget levels and allocation mechanisms for the post-2007 timeframe. The current budget levels and the measures used to comply with today's final rule will remain in effect until EPA takes action on establishing new State budgets.*

4. What is the timing of the final budget decisions and the final answer on affected sources? (Region 3/PA)

*EPA intends to publish the final budget in the Federal Register as soon as possible after EPA's emissions inventory comment evaluation period (i.e., after April 23, 1999) which will be provided for the section 126 and FIP proposals.*

5. How should States plan for new source growth in their budgets? (Region 4)

*EPA factored new source growth into the budgets for all sources. For details, see EPA's Budget TSD, September 1998, Docket Number A-96-56, VI-B-10. States should use the same growth assumptions as EPA.*

6. In Appendix C, what are the units for the column entitled "Heat Rate?"

*The units are Btu/KWh.*

## EMISSIONS TRADING/MODEL RULE ISSUES

### General

1. What are the advantages and disadvantages of the NO<sub>x</sub> Budget Trading Program? (Region 4/SC)

*The NO<sub>x</sub> Budget Trading Program has many advantages:*

- *A budget trading program is a flexible, proven and cost-effective method for achieving emission reductions.*
- *Cost projections indicate a 30% cost savings over command and control.*
- *Under a budget trading program, sources may install controls, increase efficiency, shift generation to cleaner units, or purchase allowances to comply.*
- *The NO<sub>x</sub> Budget Trading Program may achieve 100% of the reductions required by the SIP Call if cement kilns and IC engines are regulated.*
- *The program requires minimal State resources to administer.*
- *The trading infrastructure and data systems already exist.*
- *EPA will provide technical assistance and help administer the system.*
- *The NO<sub>x</sub> Budget Trading program satisfies the SIP approvability criteria for the portion of the SIP budget attributed to the trading sources (meets the timing requirements for installing controls and achieving budgets, satisfies the mass emission limit or equivalent requirements for large combustion sources, and satisfies the monitoring requirements for large combustion sources).*
- *Any State adopting regulations substantively identical to the model rule will receive streamlined SIP approval for that portion of their SIP submission.*

2. Is localized flow control (capping aggregate local NO<sub>x</sub> emissions including all trades) during a period within the ozone season allowed if we adopt a State trading program that provides region-wide trading credits? (Region 5)

*Yes. See NO<sub>x</sub> SIP Call preamble section VII.C.4 (63 FR 57459-60, October 27, 1998). States participating in the NO<sub>x</sub> Budget Trading Program that identify a specific source located where NO<sub>x</sub> reductions would be particularly beneficial may establish specific permit limitations for this source(s). The permit limitation would allow a source to participate in trading, but not to emit more than its permitted amount, regardless of how many allowances it holds. Through the SIP review process, EPA will work with States not participating in the NO<sub>x</sub> Budget Trading Program who choose to adopt alternative trading programs.*

3. Does EPA have a fair methodology for returning unused new source set aside allowances? We can envision a lot of problems (how to return less than 1 allowance to a source etc.). (Region 3)

*Yes. See NOx SIP Call preamble section VII.E.3 (63 FR 57470-71) and 40 CFR part 96, §96.42. The model rule contains an optional provision for a new source set-aside as well as an option for how unused allowances in that set-aside can be returned. States participating in the NOx Budget Trading Program may choose alternative methods for redistributing allowances, or they may choose not to redistribute them. In the optional methodology in the model rule, unused allowances in the new source set-aside will be returned to existing sources based on the following formula and rounding to the nearest whole NOx allowances as appropriate:*

*Unit's share of NOx allowances remaining in allocation set-aside = Total NOx allowances remaining in allocation set-aside x (Unit's NOx allowance allocation ÷ trading program budget excluding allocation set-aside)*

4. When you trade emissions, what assurance will there be that the trade won't worsen the local air quality problem? (Region 4)

*See NOx SIP Call preamble section VII.C.4. The SIP Call requires significant emission reductions regionwide. While trading could result in more reductions in some areas and less in other areas than would occur without trading, analyses suggest that the net effect of all trades will not result in significant emissions shifting. States identifying a specific source(s) located where NOx reductions would be particularly beneficial locally may establish specific permit limitations for this source(s). The permit limitation would allow a source to participate in trading, but not to emit more than its permitted amount, regardless of how many allowances it holds.*

5. Does the SIP Call require an allocation method to be in rule or just allocation per source? (Region 1/MA)

*One of a State's options for allocating to units is to assign permanent allowance allocations to units. Another option is to use an updating system that periodically reallocates allowances. If a State chooses to use an updating system, a SIP revision would not be required for each change of allocations, if a methodology for making those allocations was set forth in the rule. If an allocation methodology is not set forth in the rule, updating allowance allocations would require a SIP revision. If a State chooses to use this option, the SIP must contain a default allowance allocation to be used in the event that a State did not complete a SIP revision allocating future allowances (i.e., the allowance allocations set forth in the rule would be applicable until such time as the State revised the SIP). The rule does need to include the requirement that new sources hold allowances. See response to Question 7 below. In addition, regardless of the methodology the State chooses, the original SIP submittal must contain allocations for the 2003 ozone season.*

6. Is there any flexibility in timing of allocations? (Region 2/NJ)

*If a State chooses to participate in the NOx Budget Trading Program, the State can issue allocations for as many periods at a time as it wishes or update as frequently as it likes provided the allocations are issued at least three years prior to each relevant control period.*

7. What is needed to establish a reserve pool of allowances for growth (5 to 10%)? (Region 3/VA)

*The model trading rule describes a method for establishing a 5% new source set-aside for 2003, 2004, and 2005 (2% for subsequent years) during the allocation process (section 96.42 of the model rule). If a State used the optional approach in the model rule, the State would allocate 95% of its State trading program budget to existing sources and withhold 5% for new sources. EPA based the size of the optional set-aside on the level of new source growth projected in the budget for the core trading sources and on the number of years growth would have to be accommodated by the set-aside. A State may adopt an alternative approach for establishing and issuing allowances to new sources provided the State has a requirement that new sources hold allowances for compliance. (New sources must hold allowances for compliance, but the State is not required to provide them any kind of allocation. In other words, a State could issue its entire trading program budget to existing sources, then require that new sources purchase all of the allowances they need from the market, rather than having a set-aside for them).*

8. Can a new source be a synthetic minor source to avoid becoming a core source?

*Under the model trading rule found in 40 CFR Part 96, the core sources are determined by nameplate capacity or maximum design heat input (see section 96.4(a)(1)-(2)). This is what makes a source subject to the trading rule and its requirements. Once a source has been found to be subject to the rule, the only way to avoid these requirements is for the source to accept the federally-enforceable permit restrictions found in section 96.4(b). For example, the permit would restrict the unit to burning only natural gas or oil during a control period in 2003, or later, and each control period thereafter, and would limit that source's emissions to 25 tons or less per ozone season through a restriction on hours of operation.*

9. If supported by modeling, can VOC reductions be substituted for NOx reductions to satisfy the transport reductions?

*No, States are not allowed to substitute VOC for NOx reductions for purposes of responding to the NOx SIP Call in the 23 jurisdictions. The final rule was based on an analysis of NOx transport, and was based in large part on the modeling and analytical work of OTAG. All of this analysis determined that NOx reductions are needed to reduce regional transport, while additional VOC reductions may be needed for some local attainment needs. The SIP Call is for transport, not attainment; therefore, VOC*

*reductions cannot substitute for the required NOx reductions.*

## **Processing/Approvability of Trading Rules**

1. Will OTC States with rules which do not conform to the model be able to trade with other budget program States? (Region 1)

*It depends. States are allowed flexibility with respect to following the model rule in areas such as applicability and allowances allocations. Other variations in the States trading rule may require normal SIP review before determining whether they may trade with other budget program States.*

2. Why is it necessary to have separate opt-in permits for part 96? What is the purpose of this, and do these sources only convert to standard budget program permits if the State changes its rules as to applicability to include these sources? Region 3/PA

*Because opt-ins cover individual sources, rather than an entire source category, paper emissions reduction credits could be generated by reducing utilization at an opt-in source, while increasing utilization at another source that does not opt in. The opt-in process was set up to address this concern. If a State elects to include an entire additional category of sources, such emissions shifting would not be possible, therefore, the individual unit opt-in process would not have to be used and the additional units could be treated just like any other budget unit.*

3. If a State becomes subject to a FIP and the allowance allocation methodology described in 40 CFR part 97, can a State still submit a SIP and have a different allowance allocation methodology replace the FIP's method?

*Yes. After a FIP is in place in a State, the State can, at any time, submit a SIP to take the place of the FIP. The SIP can also have its own allowance allocation method that can differ from the one in the FIP. When a SIP is approved, and takes the place of the FIP, all of the SIP (including any allowance allocation methodology) becomes effective.*

*It is possible to have a new allowance allocation method take the place of the one in the FIP because the FIP, as proposed, will allocate allowances on a year-to-year basis. For example, if a FIP becomes effective in a State, EPA has proposed that the FIP allowances are determined from historical data and will be given to sources 3 years prior to the control season they are needed. For the first control period of 2003, the sources would receive allocations in the Spring of 2000. Therefore, if EPA approved a SIP before 2000, EPA would not use the FIP allocation and the State would allocate allowances based on the method found in the SIP. If EPA approved a SIP after the FIP allocation method was already being used for that year, the State would implement the SIP method for the next year following the last year for which the FIP had distributed allocations. In other*

*words, if EPA approved a SIP in late 2004, EPA would already have made allocations for the year 2007 under the FIP, and the State would use its SIP allocation method for the control period of 2008.*

## **Early Reductions/Compliance Pool**

1. Will separate SIP rulemaking be required for early credit certification? (Region 1)

*The SIP Call allows a State to issue certain credits for NO<sub>x</sub> reductions prior to 2003 (see §51.121(e)(iv)). States choosing to issue early reduction credits would provide an early credit methodology as part of their Fall 1999 SIP revisions. Provided the early reduction credits are issued using the methodology contained in the SIP, no additional SIP rulemaking would be required. 40 CFR part 96.55 contains an optional early credit methodology that States may adopt.*

2. What if transport SIP regulations contain director's discretion for State to approve such early credits and EPA would otherwise approve package? (Region 1)

*See 40 CFR 51.121(e)(iv). The SIP rules must contain the methodology that the State will use to issue early reduction credits. The methodology should specify how the credits will be awarded and ensure that they are issued by May 1, 2003, that the reductions are not already contained in the State's SIP or otherwise required by the CAA, that the reductions occurred during the ozone control seasons of 2000, 2001, or 2002, and that the reductions are quantified according to procedures described in the SIP and approved by EPA. If the reductions are generated by fossil fuel-fired NO<sub>x</sub> sources serving electric generators with a nameplate capacity greater than 25 Mwe or boilers, combustion turbines or combined cycle units with a maximum design heat input greater than 250 mmBtu/hr, they must be quantified according to part 75.*

3. Regarding the early reduction/compliance pool provision at §51.121(e)(iv), will EPA develop additional guidance on how sources will demonstrate that early reductions could not be generated or acquired? Maybe EPA could develop a policy that sources must seek to acquire early reductions from ANY other State before receiving allowances through a direct distribution? Also, will costs be included in the direct distribution demonstration? (Region 2)

*EPA is not currently planning to develop additional guidance on what sources need to demonstrate to receive credit through the direct distribution method. A State may develop its own method provided the methodology is described in its SIP and that methodology follows the provisions in 40 CFR part 51.121(e)(iv). Those provisions include that direct distribution credits must be issued by the later date of September 30, 2002 or after the State issues all of its early reduction credits, but before May 1, 2003. Sources receiving credit must also demonstrate that complying with the applicable control measures by May 1, 2003 would create undue risk, that they couldn't generate or*



*acquire early reduction credits, and that they couldn't acquire sufficient allowances through a trading program. The State must also ensure that the public has an opportunity to comment on the appropriateness of direct distribution to a source. There is no requirement that costs be included in a direct distribution demonstration.*

4. What is the basis for the 200,000 tons of credits in the compliance supplement pool?

*See preamble section III.F.6 (63 FR 57428-30). If one-third of the SCR that EPA projects will be installed to meet the SIP Call is not installed by May 1, 2003, approximately 200,000 more tons of NO<sub>x</sub> will be emitted than is accounted for under the SIP Call. Therefore, the compliance supplement pool should cover any unanticipated events that might delay for one year installation of SCR on up to one-third of the units expected to install SCR..*

5. Under what timeframe must these credits be used?

*See preamble section III.F.6 (63 FR 57428-30). Credits from the compliance supplement pool must be used in either 2003 or 2004. Unused credits from the compliance supplement pool will automatically be retired prior to the 2005 control season.*

## MODELING/SIGNIFICANT CONTRIBUTION ISSUES

1. How did we use the CAMx model? What is the role of CAMx vs. UAM-V?

*In responding to the comments on the NOx SIP Call, EPA included the source apportionment technique built into the CAMx model as part of the modeling analysis to evaluate the downwind contributions of emissions in upwind States. The UAM-V zero-out modeling quantifies the contributions by the differences between two model runs (i.e., Base Case vs. Zero-out), while the CAMx source apportionment modeling directly estimates the contributions of upwind sources to receptor areas. Currently, there is no technical evidence showing that one technique is clearly superior to the other. In determining significance, the EPA developed metrics for each model based on frequency and amount of contribution and relative contribution. The metrics for both models had to indicate a significant contribution before upwind State emissions were judged to be significant.*

2. In that South Carolina's contributions were comparable if not less than those of the Coarse Grid, EPA had the option of deferring a decision on whether or not to include South Carolina in the SIP Call. Please provide a brief explanation as to whether such a deferral was considered, and if so, why South Carolina remained in the final rule. If such a deferral was not considered, is EPA willing to consider such an alternative?

*EPA had both Source Apportionment Modeling, using CAMx, and Zero-Out Modeling using UAM-V, for South Carolina showing that the State was a significant contributor. For coarse grid States, EPA did not have sufficient modeling (i.e., did not have both Source Apportionment and Zero-Out Modeling) to make determinations about significance of contribution. We are beginning to look at the additional coarse grid States and will treat all States equitably.*

## SIP APPROVABILITY ISSUES

### Completeness and Approvability Issues

1. Will Headquarters develop boilerplate language for SIP approvals? (Region 1)

*Yes, in conjunction with the Regions.*

2. What is the expected line of communication when SIP packages come to EPA? (Region 1)

*EPA Regional Offices will encourage States to send draft submittals as early as possible. Regions will encourage States to communicate frequently with EPA to resolve issues during draft rule development to expedite the SIP review process. We anticipate the formation of a working group that will foster review and communication among Headquarters and all Regions to ensure regional consistency and rapid issue resolution.*

*Regions will send any draft submittals to Headquarters contacts for concurrent review prior to the September 30, 1999 due date. Headquarters contacts for NOx SIP reviews are--OAP/ARD: Kevin Culligan (Regions 1, 2, 3); Sarah Dunham (Regions 5, 7); Melanie Dean (Region 4); OGC: Amey Marrella (through May 1999) and Howard Hoffman (after May 1999); and OAQPS: Jan King. The OAQPS contact will distribute specific portions of packages to technical experts, e.g., modeling, inventories, regulatory requirements. Monthly communication calls will be scheduled between EPA Headquarters and Regional Offices to discuss SIP packages. Various subgroups will meet to discuss issues, e.g., FIPs, trading, etc.*

*Following this joint review process for draft submittals, Regions, in consultation with Headquarters, will prepare for Regional Administrators' signature notices of proposed approval/disapproval on the State submittals received on September 30, 1999. Following public comment period on proposed approvals/disapprovals, EPA Regional Offices will prepare final action notices for Regional Administrator signature in consultation with EPA Headquarters. In addition, Regions, in consultation with Headquarters, will make findings of incompleteness as necessary.*

3. Who in Headquarters must receive the packages? (Region 1)

*Headquarters contacts for NOx SIP reviews are--OAP/ARD: Kevin Culligan (Regions 1, 2, 3); Sarah Dunham (Regions 5, 7); Melanie Dean (Region 4); OGC: Amey Marrella (through May 1999) and Howard Hoffman thereafter; and OAQPS: Jan King.*

4. If a State is under the NOx SIP Call, but not exposed to the original 126 action (e.g., Georgia,

Wisconsin and South Carolina), is a broader program flexibility available? (Region 5)

*No, all States are treated the same for purposes of the NOx SIP Call and operate under the same timeframe.*

5. What type of guidance will EPA be providing? (Region 3/MD)

*In addition to the NOx SIP Call preamble/final rule published October 27, 1998 (63 FR 57356) and corrections and clarifications to the final rule published December 24, 1998 (63 FR 71220), EPA is compiling this set of questions and answers, which covers a range of issues raised by States, plus SIP completeness and approvability checklists. Both sets of guidance are being distributed to States.*

6. What are the general requirements on minimum content in the response SIP? Is anything needed if we accept the EPA estimates for certain source sectors (i.e., nonroad, area, mobile)? (Region 3/VA)

*The general requirements on minimum content in the SIP response are the approvability criteria listed in the preamble and regulations included in the Notice of Final Rulemaking (63 FR 57451-57452; 57494-57496).*

*Each SIP revision should include the following general elements related to the regional strategy: (1) baseline 2007 statewide NOx emissions inventory (which includes growth and existing control requirements)--this would generally be the emissions inventory that EPA used to calculate the required statewide budget; (2) a list and description of control measures to meet the statewide budget; (3) evidence that such measures are fully-adopted and require sources' compliance by May 1, 2003; (4) clearly documented growth factors and control assumptions; and (5) a 2007 projected inventory that demonstrates that the State measures, along with national measures and emissions from other sources for which no additional controls are assumed, will achieve the State budget in 2007.*

*Additional SIP approval criteria apply (as described in 40 CFR 51.121(f)(2)) where States choose to impose control measures covering large EGU's and non-EGU's (i.e., EGU's with nameplate capacity greater than 25 Mwe and all boilers, combustion turbines and combined cycle units with a maximum design heat input greater than 250 mmBtu/hr). For these sources States must provide mass emission limits, emissions rates assuming maximum utilization, or an alternative approach which the State demonstrates will provide equivalent or greater assurance that the State will comply with its NOx budget in the 2007 ozone season (note that the State must require controls on these sources to be installed and operating by May 1, 2003). SIP submittals controlling large EGU's and large non-EGU's must also require those sources to comply with the monitoring provisions of part 75, subpart H.*

## Regulatory requirements

1. Clarify what is the enforceable requirement. Will EPA enforce against the State budget or just enforce against approved measures or permits? (Region 3/VA; Region 5)

*See recalculation of budgets section in the SIP Call final notice (63 FR 57425-28). The measures that the State adopts and EPA approves are the enforceable requirements.*

*Failure to meet the State's budget will generally not be the basis for EPA SIP action against the State. If the measures the State adopts through rulemaking do not achieve the reductions needed to meet the 2007 projection, EPA will work with the State to determine the reason for the failure and what action, if any, is needed. However, if a State chooses to regulate large EGU's and large non-EGU's, as defined in 40 CFR 51.121(f)(2), then the State is responsible for ensuring that all such sources, including new or modified units, will not exceed the emissions in 2007 projected by the State for such sources. (Additionally, the State must require controls on these sources to be installed and operating by May 1, 2003. To avoid any potential confusion about the compliance deadline, section 51.121(f)(2)(ii) has been amended to contain an explicit reference to section 51.121(b)(1)(i) and (ii) which "requires full implementation of all such control measures by not later than May 1, 2003.") EPA could take SIP action against the State for failure to meet those emission reduction projections.*

*To the extent any source fails to comply with the control measures imposed by the State, EPA as well as the State may take enforcement action against such source.*

2. What if all sources meet their applicable mass (lb/mmBtu) emission limitations, but have higher-than-projected growth, such that the tonnage-based emissions budget is exceeded for a particular source sector? (Region 5/ LADCO)

*EPA requires that if a State elects to control large electric generating units and/or other large boilers, turbines and combined cycle units for purposes of meeting the NOx SIP Call, those sources must meet the aggregate mass limit projected for such sources by the State in its SIP submission, regardless of how projected growth compares to actual growth within the same source category and regardless of whether the State chooses to control the sources through a trading program. See 40 CFR 51.121(f)(2)(ii).*

3. Explain how to calculate an emissions cap versus a rate-based (lb/mmBtu) number. (Region 4)

*For sources required to meet an aggregate emissions limit, an emissions rate-based control level would be determined by multiplying a seasonal NOx rate (lb/mmBtu) by the maximum potential heat input for the season (mmBtu). The NOx rate needed to achieve the aggregate limit would be adjusted accordingly to ensure all emissions would be*

*accounted for within that limit. An emissions cap-based control level, on the other hand, is determined on a tons per season basis across a source sector (an aggregate emissions level), avoiding the need to back-calculate to determine appropriate source specific emission rates.*

4. Please clarify the regulatory options in section 51.121(f)(2) and compliance deadlines where States allow use of compliance supplement pool.

*The final SIP Call provided that if a State elects to impose control measures on fossil fuel-fired NOx sources serving electric generators with a nameplate capacity greater than 25 MWe or boilers, combustion turbines or combined cycle units with a maximum design heat input greater than 250 mmBtu/hr, then the State must require those controls to be installed and operating by May 1, 2003. To avoid any potential confusion about the compliance deadline, section 51.121(f)(2)(ii) has been amended to contain an explicit reference to section 51.121(b)(1)(i) and (ii) which "requires full implementation of all such control measures by not later than May 1, 2003." Note that, should a State elect to impose control measures on these NOx sources, States have several options for establishing control measures under section 51.121(f)(2)(i). Whichever option a State chooses, the entire source category, including new sources, must not exceed the State's projection of total 2007 emissions for this category of sources, as required by §51.121(f)(2)(ii). If SIP rules allow use of credits from the State compliance supplement pool, sources required by the State to implement control measures by May 1, 2003 may demonstrate compliance in the 2003 and 2004 ozone seasons using credits from the compliance supplement pool.*

5. Where did the assumption for controls from IC engines come from? Alabama questioned whether 90% controls can be done. (Region 4/AL)

*EPA relied on the " Alternative Control Techniques Document -- NOx Emissions from Stationary Reciprocating Internal Combustion Engines" EPA-453/R-93-032. July 1993. Internet address - <http://www.epa.gov/ttn/catc>; click under "products."*

#### **Failure to submit/Sanctions/FIPs**

1. South Carolina requested that EPA provide a brief overview of sanction measures that might be implemented to include what and when potential sanctions would be imposed. If sanctions are proposed, when and how can sanctions be removed. What is the geographic coverage for sanctions? (Region IV/SC)

*(See SIP Call final rule preamble at 63 FR 57452-53 and FIP proposed rule at 63 FR 56400.)*

*If a State fails to submit the required SIP provisions, the CAA provides for EPA to issue a*

*finding of State failure under section 179(a). (EPA is using the phrase “failure to submit” to cover both the situation where a State makes no submission and the situation where the State makes a submission that EPA finds is incomplete in accordance with section 110(k)(1)(B) and 40 CFR part 51, Appendix V.) Sanctions apply so long as a submittal is not complete, for example, a partial submittal would not be complete and thus sanctions would be in order. In addition, if a State submits a SIP revision that EPA ultimately disapproves, that disapproval would also trigger a finding of State failure under section 179(a) which initiates a sanctions clock.*

*The CAA provides for two types of sanctions: (1) a requirement that new or modified sources subject to a section 173 new source review program obtain reductions in existing emissions in a 2:1 ratio to offset their new emissions (the offset sanction); and (2) withholding of certain Federal highway funds (the highway sanction), section 179(b). These requirements are in addition to EPA’s FIP obligation. A finding of State failure starts an 18-month sanctions clock; if the State fails within that period to make a submittal that EPA determines is complete, the offset sanction will apply. If 6 months after the offset sanction is imposed, the State still has not made a complete submittal, the highway sanction will also apply.*

*Section 179 sets certain limits on where mandatory sanctions apply. The highway sanction applies in designated nonattainment areas, and the 2:1 offset sanction applies in areas with part D NSR programs. The section 179 sanctions are removed when the State corrects the deficiency that initiated the sanctions; for example, submittal of a complete SIP would stop the sanctions clock in the case where sanctions were initiated due to lack of submittal. Any FIP that is promulgated would be replaced with the State’s SIP at the time EPA takes final approval action on that SIP (submittal of the SIP does not, by itself, remove the FIP). Please note that even in circumstances where a FIP is in place, the sanctions clock continues until submittal of a complete SIP.*

*EPA has additional authority to impose discretionary sanctions under section 110(m). At this time, EPA is not prepared to determine whether and when it is appropriate to use the discretion provided under section 110(m) in imposing sanctions. We believe it is not appropriate to make a general determination regarding the application of sanctions under section 110(m); rather if circumstances warrant the use of sanctions under section 110(m), we may take future rulemaking action to use that authority. Before EPA uses the section 110(m) authority, EPA must go through notice-and-comment rulemaking, which should provide States adequate certainty about EPA’s intentions on the use of discretionary sanctions and time to respond to any action that EPA may take.*

*If a State fails to implement its SIP, EPA may also make a finding under section 179. The finding triggers the mandatory sanctions as described above. The EPA may also choose to apply discretionary sanctions as a consequence of failure to implement. However, the FIP requirement is not triggered.*

2. One Region III State believes that if the State fails to submit a SIP by next September the following occurs: 1. EPA sends a failure notice. 2. 18 month sanction clock starts. 3. FIP in (about) March 2000. Is this the same thinking that Headquarters is using? The State plans to submit as quickly as possible.

*If a State fails to respond to the NO<sub>x</sub> SIP Call by adopting and submitting to EPA a complete revised SIP by September 1999, EPA intends to take final rulemaking action on the FIP immediately thereafter. This action would include publication of the finding of failure in the Federal Register. Thus, the FIP could be promulgated by about November 1999. The sanctions clock would begin to run as of the date of the finding of failure to submit a SIP.*

3. Can we assume that a FIP would be pursued based on more typical circumstances and not based on an absolute calendar driven by the Section 126 MOAs? (Region 5)

*A FIP schedule is not driven by the Section 126 MOA process. EPA's goal is to ensure achievement of the NO<sub>x</sub> reductions by May 1, 2003. To meet this goal, if a State misses the September 30, 1999 SIP submittal deadline, EPA intends to promulgate a FIP for that State in the Fall of 1999.*

4. Does EPA expect to be able to approve SIPs that supplant a declared FIP using equivalent criteria to a timely SIP submittal? (Region 5)

*Yes. EPA would expect to approve SIPs that replace a promulgated FIP so long as the SIP meets the approvability criteria set forth in §51.121 and provides for implementation by May 1, 2003 of measures that achieve the required emissions reductions.*

5. Will there be a sunset for being able to move from a FIP structure to a SIP structure? (Region 5)

*There is no sunset for moving from a FIP to a SIP. Transitioning from a FIP to a SIP will be easier for SIPs that mirror the FIP. A SIP can replace a FIP at any time. However, States should consider submitting SIPs to replace FIPs as soon as possible to provide any sources newly regulated in a SIP adequate time to meet the May 1, 2003 date.*

6. If EPA promulgates a FIP for an area, how will it be implemented? Will EPA reopen issued Title V permits; will conditions be required in Title V permits; and if cap and trade is implemented by EPA, how will federal implementation of a cap and trade preclude interference with any of our 8-hour needs. (Region 4/SC)

*The FIP requirements apply as free-standing federal requirements and, as such, are*



*enforceable by EPA. In addition, since the proposed FIP is being promulgated under title I (i.e., under section 110), both the requirements of the federal trading program (part 97) and the rules governing stationary internal combustion engines and cement plants (part 98) are applicable requirements under 40 CFR 70.2 and 40 CFR 71.2. Therefore, they must be reflected in the title V operating permit of any sources affected by this rulemaking that are required to have such a permit. To accomplish this, the permit authority (State or local) would reopen any part 70 permit, and EPA would reopen any part 71 permit, for affected sources.*

*A permit shall be reopened and revised...[when] [a]dditional applicable requirements under the Act become applicable to a major part 70 [or 71] with a remaining permit term of 3 or more years. See 40 CFR 70.7(f)(1)(i) and 71.7(f)(1)(i).*

*Since the FIP would result in emissions reductions, it is not expected to interfere with attainment of the 8-hour standard. Further, a State can impose requirements in addition to the FIP if needed to assure local attainment.*

7. In the FIPs, there appear to be caps for all sources, not just electric generating units, so it appears to contradict the FRN for the SIP Call that says that area sources and small non-utilities don't have to do anything. Is this correct? (Region 3/VA)

*No, the proposed FIP contains a cap on emissions from large EGUs and large non-EGU boilers and turbines only. The proposed FIP also contains emission rate limitations for large IC engines and control requirements for large cement plants. The proposed FIP does not include any other emissions reduction requirements.*

## **New Source Review**

1. If a new power plant is built, are its new emissions counted against the budget? (Region 3/VA)

*Yes. EPA requires that if a State elects to control large electric generating units and/or other large boilers, turbines and combined cycle units for purposes of meeting the NOx SIP Call, those sources must meet an aggregate mass limit regardless of how projected growth compares to actual growth within the same source category and regardless of whether the State chooses to control the sources through a trading program. See §51.121(f)(2). Any growth from new sources that occurs would have to be accommodated within the mass emission allocations provided by the State for that source category, even if growth in that category should prove to exceed EPA's projections.*

## **Compliance Issues**

1. What is the risk for compliance demonstration for the SIP (in terms of a FIP or other sanctions) if a state opts not to exclusively pursue a trading structure for the larger facilities and instead pursues an option that partially includes mobile sector and/or smaller facility controls? Is the State more at risk in terms of excess growth (especially in VMT) or for small source growth beyond projected sub-sector category levels? (Region 5)

*States are free to choose alternate methods to meet the assigned budgets. Such an approach does not necessarily include more risk. EPA advises States to work with their Regional Offices closely as they develop alternate control measures.*

2. What is the timeframe for complying with the NO<sub>x</sub> SIP Call?

### ***NO<sub>x</sub> SIP Call Compliance Timeline***

#### ***September 30, 1999:***

- < *SIP submittal due;*
- < *SIP must include adopted rules that require emissions reductions sufficient to eliminate the significant amount of emissions as determined by EPA in the NFR;*
- < *SIP rules must require implementation of control measures by May 1, 2003;*
- < *If a State allows use of credits from the compliance supplement pool, SIP rules must provide for and describe the mechanism(s) to be used for distribution of the compliance supplement pool.*
- < *SIP must use 2007 as the emissions projection date and project that the statewide emissions budget target will be achieved in the 2007 ozone control season.*

#### ***May 1, 2003:***

- < *Full implementation of the approved SIP control measures adopted in the September 1999 SIP (e.g., if a State requires reductions from large boilers and combustion turbines (in the EGU or non-EGU categories), the required controls must be achieved by this date);*
- < *This same compliance date applies both to the NO<sub>x</sub> SIP Call and proposed FIP and section 126 control measures.*
- < *If SIP rules allow use of credits from the State compliance supplement pool, sources required by the revision to implement control measures by May 1, 2003 may demonstrate compliance in the 2003 and 2004 ozone seasons using credits from the compliance supplement pool.*

#### ***May 1, 2003-September 30, 2007:***

- < *Between 2003 and 2007, the NO<sub>x</sub> tons may increase somewhat (with the exception of large fossil fuel-fired EGUs and non-EGUs that will have a fixed tonnage) as a*

- result of growth in activities that generate emissions, but would also decrease due to continued application of federally mandated controls;*
- < *If a State requires reductions from large fossil fuel-fired EGUs and non-EGUs, any growth that occurs in those categories would have to be accommodated within the total 2007 NOx emissions projected by the State for that category in its 1999 submission, even if the growth in that category should prove to exceed projections.*
- < *Periodic submittals (annual for sources controlled in the September 1999 SIP and triennial for others) of emissions tracking reports by the States for all NOx sources.*

#### **2007 Ozone Control Season:**

- < *States are expected to achieve their statewide emissions budgets (based on the required emissions reductions achieved by May 1, 2003 and implementation of other State and Federal control measures) in the 2007 ozone season;*
- < *As noted below, a failure to achieve the budget by 2007 is not a basis for an enforcement action;*
- < *No SIP submittal is due on September 30, 2007.*

#### **2007 Emissions Report:**

- < *States must submit a special year 2007 emission inventory report for ozone season emissions from all NOx sources in the State during the 2007 ozone control season;*
- < *This report is due December 31, 2008;*
- < *The EPA will assess whether States met their 2007 budget after receiving and reviewing the December 31, 2008 report.*

#### **Compliance in 2003 with State Control Measures:**

- < *To demonstrate compliance with the SIP Call, a State with an approved SIP submittal must adopt and implement all the control measures that the State projected would achieve the aggregate emission reductions required in the SIP Call.*
- < *These control measures are enforceable and must be complied with by May 1, 2003 and thereafter.*
- < *If a State elects to control large fossil fuel-fired EGUs or non-EGUs, the control measures for these sources would be mass emission limits, emission rates assuming maximum utilization, or their equivalent.*

#### **Compliance with 2007 Budget:**

- < *The overall 2007 budget number itself is not enforceable against the State;*
- < *The budget serves as a tool for projecting in advance whether a State has adopted measures that will produce the required amount of emissions reductions, as indicated by the initial demonstration submitted by September 30, 1999;*
- < *The budgets are also a means for determining from 2003 to 2007 whether States are fully implementing those measures;*
- < *Thus, the budgets are an accounting mechanism for determining whether upwind States have adopted and implemented control measures that prohibit the significant amounts of NO<sub>x</sub> emissions targeted by section 110(a)(2)(D)(i)(I).*

#### ***Noncompliance:***

- < *If tracking and periodic reports indicate that a State is not implementing by May 1, 2003 all of the NO<sub>x</sub> control measures it adopted to achieve the required reductions or is off track to achieve the reductions that its SIP submission had projected would be achieved by September 30, 2007, EPA will work with the State to determine the reasons for noncompliance and what course of remedial action is needed;*
- < *The EPA will expect the State to submit a plan showing what steps it will take to correct the problems;*
- < *Failure to implement the measures adopted to comply with the SIP Call may lead EPA to make a finding of failure to implement the SIP and potentially to implement sanctions, if the State does not take corrective action within a specified time period.*

#### ***2007 Reassessment:***

- < *After compiling the necessary data, EPA will reassess transport in the full OTAG region to evaluate the effectiveness of the regional NO<sub>x</sub> measures and the need, if any, for changes to the regional control strategy.*

#### **Reporting and Monitoring Issues**

1. Can there be a safe harbor for small sources that choose early opt-ins in terms of reporting and monitoring requirements? (Region 5/LADCO)

*Assuming this means, can a small source that opts in early to the model NO<sub>x</sub> Budget Trading Program (assuming its State elects to adopt such program), receive reduced monitoring requirements, the answer is no. However, it should be noted that a number of revisions have been made to Part 75 to allow more flexibility for oil and gas units which operate infrequently or have low mass emissions.*

2a. Will the Model NO<sub>x</sub> Budget Trading Program for NO<sub>x</sub> SIPs include a similar petition for relief from the "fancy", utility-grade CEMs requirements to that provided for smaller sources or hardship cases under the acid rain program? (Region 5/LADCO)

*Part 75 provides a number of flexibilities, including non-CEM monitoring options for oil and gas units which operate infrequently or have low mass emissions. (See Appendix E of part 75 and §75.19.)*

*Part 75 also currently contains a petition provision. If a source wished to apply for an alternative to a CEM. In this case, the owner or operator of the unit would have to perform a demonstration that the alternative monitoring methodology was as accurate as a CEM. This petition provision would probably not be used by a gas or oil unit that had low mass emissions or was infrequently operated because part 75 already provides non-CEM options for these types of units.*

*In addition, Part 75 contains a second petition provision that allows an authorized account representative to petition for alternatives to a specific requirement of part 75 (for example, an extension to a testing requirement, or the use of a test method not specifically referenced in part 75). Furthermore, EPA is in the process of finalizing revisions to part 75 that will provide many of the flexibilities that units have petitioned for since the inception of the program.*

*Both of these petition processes would be available to units using part 75 for purposes of complying with the SIP Call.*

*Note that Part 75 applies whether or not the source participates in the trading program, so long as the State imposes controls to meet the SIP Call. See 40 CFR 51.121(i)(4).*

2b. Does EPA have a structure in mind for such a permit process?

*Yes, such petitions would have to be approved by both EPA and the State. See 40 CFR 96.75.*

2c. What criteria would be considered?

*The criteria that are considered in approving an alternative monitoring system are explicitly laid out in subpart E of part 75. They include gathering 720 hours worth of data from the alternative that can be compared to CEM data for the same source.*

*The criteria that are used for other types of petitions are more difficult to explicitly set forth since an owner or operator may petition regarding any part of the part 75 requirements. Many of these petitions deal with issues that were not anticipated in the development of part 75. In general, EPA would consider whether the alternative being*

*proposed was equivalent to the requirements in part 75 for a similar type of unit or situation.*

3. Is there any definition flexibility in terms of "fuel" for small source exemption from some CEM and reporting requirements? As an example, can a source include permit limitations on seasonal fuel use such that the ozone season fuel might be something other than coal while the remainder of the year might include some coal use? (Region 5/LADCO)

*Yes, if a source (regardless of size) that was only required to monitor and report using part 75 for purposes of the SIP Call (i.e. the source was not subject to Title IV), took a permit restriction to only burn oil or gas during the summer, the State could allow that unit to use the monitoring options in part 75 for gas and oil fired units.*

4a. Is it possible to accumulate early supplemental pool credits without an installed CEM? (Region 5/LADCO)

*It depends upon the type of source. Part 75 allows non-CEM monitoring options for oil and gas units which operate infrequently or have low mass emissions. Note that sources for which a company intends to apply for early reduction supplemental pool credits must monitor according to part 75 no later than the ozone season before the ozone season in which they are applying for early credits.*

4b. If a source is below a certain size or throughput, does EPA provide any relief in terms of reporting requirements? (Region 5/LADCO)

*All NOx emissions are required to be reported for the triennial reports. There is no size below which this reporting requirement does not apply. Stationary point sources have specific requirements concerning data elements which must be reported. These stationary point sources are generally defined as emitters of 100 tons/year or more of NOx; however States are given the option of specifying a smaller threshold than 100 tons/year for defining point source. Generally non-mobile sources smaller than point sources, would be reported as area sources. These emissions from such area sources, along with mobile source emissions, would be determined by the State, probably using various emission factors, and reported by the State. Area and mobile sources would not themselves have to report their emissions directly to the State, so in a sense smaller sources would not be subject to reporting requirements although the State must still determine and report the emissions from such sources.*

## NEW NAAQS/TRANSITIONAL AREAS

1. Does the draft 8-hour implementation guidance still say that the mobile budgets for maintenance areas have to be changed to reflect the SIP Call? The budgets may have to be changed. (Region 3/VA)

*(NOTE: This response assumes that “maintenance areas” means “nonattainment areas.”) The draft 8-hour implementation guidance<sup>1</sup> for transitional areas requires on-road mobile emission budgets that reflect the attainment demonstration for the nonattainment area. If the area is relying on EPA modeling of the NOx SIP Call as its demonstration of attainment for the 8-hour standard, the on-road emissions budget must reflect the attainment level of emissions that was modeled. If the State elects to achieve its statewide budget by measures that would result in a different attainment-level of on-road mobile emissions for the area than those modeled, or if the State elects to perform its own modeling in support of its attainment demonstration, the State’s on-road emissions budget for the nonattainment area for conformity purposes must reflect those emissions rather than those EPA modeled. EPA plans to issue a proposed rule that would cover transportation conformity for transitional areas.*

2a. Are there good reasons for the transportation community to support the SIP Call? (Region 3/VA)

*States must demonstrate attainment of the 1-hour and 8-hour ozone NAAQS and will require emission reductions to do so. For areas where EPA believes that upwind emissions from other States contribute significantly to nonattainment, the NOx SIP Call helps alleviate the burden on individual States to develop local controls of ozone precursors by reducing pollutant transport throughout a large multistate region. The NOx SIP Call will provide many--and for the vast majority of the new 8-hour nonattainment areas, all--of the emission reductions nonattainment areas need to attain the 8-hour and 1-hour ozone NAAQS. The SIP Call requires each affected State to meet a NOx emissions budget by controlling emissions from NOx sources within its State. In achieving the budget, it is likely that States will choose to control the major stationary sources and not place as many restrictions on the transportation sector. This should provide for easier implementation of the transportation conformity program, particularly in areas that are classified transitional under the revised 8-hour ozone NAAQS. We believe that the transportation community would likely support such an outcome and,*

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<sup>1</sup>November 17, 1998 Draft, “Proposed Implementation Guidance for the Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and the Regional Haze Program.” Available on the following EPA website:  
<http://ttnwww.rtpnc.epa.gov/implement/actions.htm> .

*therefore, would support the SIP Call.*

- 2b. Will transitional areas have streamlined conformity requirements? (Region 3/VA)  
Explain the anticipated differences between conformity and transitional conformity requirements.  
(Region 4/SC)

*Areas classified transitional will be able to take advantage of a streamlined conformity rule, which is under development. A description of what EPA intends to propose is available at [www.epa.gov/oms/traq](http://www.epa.gov/oms/traq). The rule is anticipated to allow a VMT screen instead of a full emissions analysis. To pass a VMT screen, a State must show that VMT projections for the attainment year (based on the most recent planning assumptions and the proposed plan and Transportation Improvement Plan (TIP)) are less than or equal to the SIP's VMT projection. If an area cannot pass the VMT screen for the attainment year, then it must run an emissions test for the attainment year and the tenth year of the transportation plan. In addition, the rule is expected to allow a three-year grace period for areas that are unable to pass an emissions budget test. Areas that cannot pass the emissions test for the outyears have 3 years to fix the problem, or they will lapse.*

- 3a. If an area chooses to be a “traditional” ozone non-attainment area, what additional measures over a “transitional” classification apply? (Region 3)

*The SIP requirements for nonattainment areas classified as either transitional or traditional for the 8-hour ozone NAAQS are addressed in the draft implementation guidance<sup>2</sup> currently available for public review. The guidance--for both traditional and transitional areas--does not require any specific control measures to be adopted, and does not require additional controls beyond those an area needs to demonstrate attainment. The major differences between the requirements for traditional area compared to transitional areas are summarized in a table in the draft guidance, which is reproduced below in Attachment A. In addition, traditional areas would have to meet the current new source review and conformity requirements, whereas transitional areas would be subject to streamlined rules for these programs under anticipated EPA rulemaking.*

- 3b. If NSR offsets apply, what level of offset would be required? (Region 3)

*The EPA plans to issue a proposed rulemaking shortly under 40 CFR parts 51 and 52 that will address the major source permitting rules applicable to areas designated nonattainment under the 8-hr standard, including offset ratios (where applicable), control technology requirements, and the major stationary source definition.*

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<sup>2</sup>Ibid.



## ALTERNATIVE PROPOSALS FROM STATES

1. In its SNPR, EPA requested that commenters offer alternative proposals to the original proposed rule. To our knowledge none were accepted by EPA. Please offer some discussion as to whether this is now a moot point or if EPA is willing to consider alternatives to the final rule. (Region 4/SC)

*As described in the NFR, EPA considered alternative approaches and rejected them because none of the alternative approaches resulted in greater environmental benefit at a lower cost than the final rule. EPA is now concentrating on implementation of the SIP Call.*

2. What would be EPA's response if Virginia submits a SIP that follows the SE/MW Governors' alternative proposal? (Region 3/VA)

*EPA will accept a SIP that meets the criteria set out in the October 27, 1998 Federal Register notice for the final rulemaking. To comply with the NO<sub>x</sub> SIP Call, a State must provide for required reductions and project that its budget will be met. If a State does not do so, the SIP submission is not approvable. Modeling done by EPA indicates that compliance with the emission budgets in the NO<sub>x</sub> SIP Call will significantly improve air quality over what would be achieved by Phase I of the Governors' proposals and will allow many areas to achieve the 8-hour standard sooner. Phase II of the Governors' proposal generally dealt with the additional controls needed to attain the new 8-hour ozone standard. We believe that the information and technical analyses we have conducted regarding the ozone transport for the 8-hour standard is sufficiently compelling to make regional control decisions now. Therefore, EPA did not accept the Phase II approach outlined in many of the Governors' proposals.*

## CONFORMITY

### 1. Describe conformity requirements for transitional areas. (Region 4)

*Areas classified transitional will be able to take advantage of a streamlined conformity rule, which is under development. A description of what EPA intends to propose is available at [www.epa.gov/oms/traq](http://www.epa.gov/oms/traq). The rule is anticipated to allow a VMT screen instead of a full emissions analysis. In addition, the rule is expected to allow a three-year grace period for areas that are unable to pass an emissions budget test.*

### 2. How do statewide NOx budgets relate to conformity budgets in specific ozone nonattainment areas? (Region 4)

*Statewide NOx budgets do not apply for conformity purposes. However, the modeling EPA used to create the statewide budgets may form the basis of many attainment demonstrations for transitional nonattainment areas under the 8-hour ozone standard. These attainment demonstrations create conformity budgets. Therefore, for the future transitional areas, the county-specific inputs for on-road mobile sources (such as VMT growth) may be the basis of future conformity budgets. EPA will disaggregate its modeling inputs to provide seasonal and typical summer day VMT and on-road motor vehicle emissions on a county-by-county basis.*

## **ATTACHMENT A**

(From “Proposed Implementation Guidance for the Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and the Regional Haze Program” Draft for public review November 17, 1998)

**Attachment A: Classification Scheme for Nonattainment Areas for the 8-Hour Ozone NAAQS**

**Table 1: Summary of Requirements by Classification** [11/17/98 draft guidance]

(Table footnotes in parentheses)

Three formal classifications:	Transitional		Traditional	International Transport
<b>Type of Area Eligible:</b>	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard and that project attainment of the 8-hour standard through the regional NOx strategy	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard, and for which the regional NOx strategy is not sufficient for attainment of the 8-hour standard or does not apply	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard (and do not qualify for or want transitional); <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard; <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked
<b>Designation By:</b>	July 18, 2000			
<b>Classification By:</b>	July 18, 2000 (1)	July 18, 2000 (1)	July 18, 2000	July 18, 2000 (1)
<b>SIP Due By:</b>	September 30, 1999 (2) - NOx SIP Call SIP, including attainment demonstration (i.e., documentation referencing EPA modeling and emissions inventory)	September 30, 1999 (2) - NOx SIP Call SIP, where applicable, and May 1, 2000 attainment SIP	July 18, 2003 (3)	July 18, 2003 (3)

Three formal classifications:	Transitional		Traditional	International Transport
Type of Area Eligible:	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard and that project attainment of the 8-hour standard through the regional NOx strategy	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard, and for which the regional NOx strategy is not sufficient for attainment of the 8-hour standard or does not apply	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard (and do not qualify for or want transitional); <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard; <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked
RFP/Implementation by:	May 1, 2003 (4)  RFP is NOx SIP Call emissions reductions on schedule	May 1, 2003 (4)  Where applicable, RFP is NOx SIP Call emissions reductions on schedule. Other emissions reductions needed for attainment on same schedule.	May 1, 2005 (4) May 1, 2007 (4) or May 1, 2008 (4)  <u>For areas that are nonattainment for only the 8-hour NAAQS:</u> RFP is emissions reductions needed for attainment by the implementation date (3 ozone seasons before attainment date) <u>For areas that are nonattainment for both NAAQS:</u> until the attainment date for the 1-hour standard, RFP required under subpart 2 for the 1-hour standard should be sufficient to meet RFP for the 8-hour standard; RFP after final attainment date for 1-hour standard is emissions reductions needed for attainment by the implementation date (3 ozone seasons before attainment date)	May 1, 2005  States should follow the RFP guidance discussed under traditional areas, in consultation with the EPA Regional Offices

Three formal classifications:	Transitional		Traditional	International Transport
Type of Area Eligible:	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard and that project attainment of the 8-hour standard through the regional NOx strategy	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard, and for which the regional NOx strategy is not sufficient for attainment of the 8-hour standard or does not apply	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard (and do not qualify for or want transitional); <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard; <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked
Attainment By: (5)	December 31, 2005 (6)	December 31, 2005 (6)	December 31, 2007 (6); December 31, 2009 (6); or December 31, 2010 (6)	December 31, 2007
Attainment Demonstration:	EPA modeling and emissions inventory for the SIP Call budget, unless State elects to perform other modeling	<u>In OTAG domain and receive SIP Call:</u> no additional modeling required; may use other demonstration techniques EPA will provide; State may elect to do additional modeling <u>Inside OTAG domain but do not receive SIP Call:</u> no new modeling if projected air quality concentrations close to NAAQS; additional analysis if projected air quality concentrations much greater than NAAQS <u>Outside the OTAG domain:</u> additional modeling required if none exists; may use other EPA demonstration techniques available	Modeled attainment test relying on ambient data. Use model in “relative” rather than “absolute” fashion with optional weight of evidence test to reduce uncertainty. Encourage use of CMAQ/MODELS3, subject to same criteria as “alternative” models; EPA will not identify guideline model. Technical guidance available.	Demonstrate attainment “but for” international emissions. Use same guidance as for traditional areas, subject to negotiation between Region and State based on area-specific characteristics.

Three formal classifications:	Transitional		Traditional	International Transport
<b>Type of Area Eligible:</b>	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard and that project attainment of the 8-hour standard through the regional NOx strategy	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard, and for which the regional NOx strategy is not sufficient for attainment of the 8-hour standard or does not apply	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard (and do not qualify for or want transitional); <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard; <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked
<b>Emissions Inventory:</b>	Rely on emissions inventories from NOx SIP Call modeling	Rely on emissions inventories from SIP Call modeling, as appropriate, plus other existing inventories	Draft emissions inventory guidance recommends the use of a 1999 base year emission inventory for attainment demonstration purposes. See detailed technical guidance.	Use same guidance as for traditional areas, subject to negotiation between Region and State based on area-specific characteristics
<b>Control Measures:</b>	RACM/RACT will be met if the area submits a SIP that EPA approves as providing for attainment. The SIP providing for attainment will be the NOx SIP Call SIP, including attainment demonstration (i.e., documentation referencing EPA modeling and emissions inventory).	RACM/RACT will be met if the area submits a SIP that EPA approves as providing for attainment. The SIP providing for attainment will consist of:  C If applicable, the SIP States submit in response to the NOx SIP Call, andA SIP with additional measures needed for attainment.	RACM/RACT will be met if the area submits a SIP that demonstrates attainment of the standard	RACM/RACT will be met if the area submits a SIP that demonstrates attainment “but for” the international emissions impacting the area

Three formal classifications:	Transitional		Traditional	International Transport
<b>Type of Area Eligible:</b>	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard and that project attainment of the 8-hour standard through the regional NOx strategy	Areas that have had the 1-hour standard revoked, that are designated nonattainment for the 8-hour standard, and for which the regional NOx strategy is not sufficient for attainment of the 8-hour standard or does not apply	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard (and do not qualify for or want transitional); <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked	1. Areas that have had the 1-hour standard revoked but are designated nonattainment for the 8-hour ozone standard; <u>and</u> 2. areas that are nonattainment for the 8-hour standard and for which the 1-hour standard is not revoked
<b>Contingency Measures for RFP Failure or Failure to Attain:</b>	Modeling predicts area will attain by a “margin of safety;” this is sufficient to satisfy the requirement for contingency measures	Provide contingency measures that reduce emissions of the ozone precursor providing most additional emissions reductions	Provide contingency measures that reduce emissions of the ozone precursor providing most additional emissions reductions	Provide contingency measures that reduce emissions of the ozone precursor providing most additional emissions reductions
<b>NSR:</b>	Forthcoming rulemakings will cover	Forthcoming rulemakings will cover	Program under EPA regulations	Program under EPA regulations
<b>Supplemental Attainment Planning:</b>	SIPs should contain an enforceable commitment for a SIP revision upon having pollutant concentrations for 2 years after the SIP implementation date that are above the level of the NAAQS (i.e., unclean data). (7) This process is designed to ensure areas that don’t attain by the attainment date can submit SIPs in accordance with section 179(c).			
<b>Framework for Planning:</b>	Not applicable		Specifies conditions under which SIP credit toward attainment demonstrations can be obtained from emissions reductions outside nonattainment areas; and provides an attainment demonstration and attainment date alignment process	Not applicable
<b>Conformity:</b>	Need on-road mobile emissions budget and VMT projection that reflects SIP attainment inventory; forthcoming rulemaking will cover	Need on-road mobile emissions budget and VMT projection that reflects SIP attainment inventory; forthcoming rulemaking will cover	Program under EPA regulations. Need on-road mobile emissions budget and VMT projection that reflects SIP attainment inventory; forthcoming rulemaking will cover.	Program under EPA regulations. Need on-road mobile emissions budget and VMT projection that reflects SIP attainment inventory; forthcoming rulemaking will cover.



- (1) The transitional and international transport classifications will be assigned by July 18, 2000 before EPA completes rulemaking action on the SIPs. If EPA does not approve a transitional area SIP, EPA will withdraw the classification.
- (2) The September 30, 1999 due date for the NOx SIP Call SIP is based on the final SIP Call.
- (3) The EPA is required to establish the SIP submittal date through rulemaking. The EPA plans to take rulemaking action on the SIP submittal date at the time it designates areas and to establish no later than July 18, 2003 as the date.
- (4) As discussed in the RFP section, this is the date that areas will need to implement the control measures needed for attainment to ensure reasonable progress toward attainment. They are:  
May 1, 2003-- Transitional areas  
May 1, 2005--Traditional areas--  
1. Areas designated nonattainment for only the 8-hour standard;  
2. Areas that are nonattainment for both standards and have attainment dates of 2003 or earlier under the 1-hour standard; and also  
3. Other areas that are nonattainment for the 8-hour standard, have not had the 1-hour standard revoked, and are designated attainment/unclassifiable for the 1-hour standard..  
Also, International Transport areas  
May 1, 2007--Traditional areas that are nonattainment for both standards and classified as severe-15 for the 1-hour standard.  
May 1, 2008--Traditional areas that are nonattainment of both standards and classified as severe-17 for the 1-hour standard.  
Not yet determined--EPA will develop--see text for discussion--The area that is nonattainment of both standards and classified as extreme for the 1-hour standard.
- (5) Attainment is as expeditiously as practicable, as required by the Act. The EPA anticipates that the attainment date for areas within each classification will be no later than the date indicated. The EPA will formally establish these dates when EPA takes rulemaking action on the specific SIPs submitted by the States. The formal assignment of attainment dates will be based on EPA's review of the facts and circumstances specific to each nonattainment area and the SIP for the area. The definition of attainment date is the same for all three classifications of ozone area. The attainment date is defined as the date by which areas must attain the 8-hour ozone standard.
- (6) December 31, 2005-- Transitional areas  
December 31, 2007-- Traditional areas:  
1. Areas designated nonattainment for only the 8-hour standard;  
2. Areas that are nonattainment for both standards and have attainment dates of 2003 or earlier under the 1-hour standard; and also  
3. Other areas that are nonattainment for the 8-hour standard, have not had the 1-hour standard revoked, and are designated attainment/unclassifiable for the 1-hour standard.  
Also, International transport areas.  
December 31, 2009-- Traditional areas that are nonattainment for both standards and classified as severe-15 for the 1-hour standard.  
End of the ozone season, 2010--Traditional areas that are nonattainment for both standards and classified as severe-17 for the 1-hour standard.  
December 31, 2010--Traditional areas that are nonattainment for both standards and classified extreme for the 1-hour standard.
- (7) E.g., for the 8-hour ozone standard, the level is 0.08 ppm, 4th highest daily maximum 8-hour ozone concentration. Under EPA's rounding convention, a monitored value greater than 0.084 ppm is considered "unclean." Thus if at any monitoring site in the nonattainment area, the average of the 4th highest concentrations for the two years is greater than 0.084 ppm, the area would have unclean data.

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## **ATTACHMENT B**

### **Sector-specific Information Required For Simplified Emissions Inventory Revisions**

(see 63 FR 71220, December 24, 1998, to determine  
if source qualifies for simplified submittal)

#### *Electric Generating Units*

*Data on a source-specific basis including:*

- *Federal Information Placement System State Code*
- *Federal Information Placement System (FIPS) County Code*
- *Plant name*
- *Plant ID numbers (ORIS code preferred (ORIS is a coding mechanism used by the Department of Energy to track plants with EGUs), State agency tracking number also or otherwise)*
- *Unit ID numbers (a unit is a boiler or other combustion device)*
- *Unit type (also known as prime mover; e.g., wall-fired boiler, stoker boiler, combined cycle, combustion turbine, etc.)*
- *Primary fuel on a heat input basis*
- *Maximum rated heat input capacity of unit*
- *Nameplate capacity of the largest generator the unit serves*
- *1995 and 1996 ozone season heat inputs*
- *1996 (or most recent) average NO<sub>x</sub> rate for the ozone season*

#### *Non-EGU Point Sources*

*Data on a source-specific basis including:*

- *Federal Information Placement System State Code*
- *Federal Information Placement System (FIPS) County Code*
- *Plant name*
- *Plant ID numbers (National Emission Data System (NEDS), Aerometric Information Retrieval System/AIRS Facility Subsystem (AIRS/AFS), and State agency tracking number also or otherwise)*
- *Unit ID numbers*
- *Primary source classification code (SCC)*
- *Maximum rated heat input capacity of unit*
- *1995 ozone season or typical ozone season daily NO<sub>x</sub> emissions*
- *1995 existing NO<sub>x</sub> control efficiency*

#### *Stationary Area Sources*

*Data on a sub-category specific basis including:*

- *Federal Information Placement System State Code*

- *Federal Information Placement System (FIPS) County Code*
- *Source classification code (SCC)*
- *1995 ozone season or typical ozone season daily NO<sub>x</sub> emissions*
- *1995 existing NO<sub>x</sub> control efficiency*

*Nonroad Mobile Sources*

*Data on a sub-category specific basis including:*

- *Federal Information Placement System State Code*
- *Federal Information Placement System (FIPS) County Code*
- *Source classification code (SCC)*
- *1995 ozone season or typical ozone season daily NO<sub>x</sub> emissions*
- *1995 existing NO<sub>x</sub> control efficiency*

*Highway Mobile Sources*

*Data on a SCC or vehicle type basis including:*

- *Federal Information Placement System State Code*
- *Federal Information Placement System (FIPS) County Code*
- *Primary source classification code (SCC) or vehicle type*
- *1995 ozone season or typical ozone season daily vehicle miles traveled (VMT)*